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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/616,499	07/09/2003	Fred A. Brown	917/A01	1760
2101	7590	11/03/2006	EXAMINER	
BROMBERG & SUNSTEIN LLP 125 SUMMER STREET BOSTON, MA 02110-1618			DWIVEDI, VIKANSHA S	
			ART UNIT	PAPER NUMBER
			3746	

DATE MAILED: 11/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/616,499	<b>Applicant(s)</b> BROWN, FRED A.	
	<b>Examiner</b> Vikansha S. Dwivedi	<b>Art Unit</b> 3746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 8/8/2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☒ Other: Amended Claims

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirao et al. (U.S. Patent number 6,709,111) in view of Flory IV (U.S. Patent number 6,388,392) and further in view of Hardy (U.S. Patent number 4,618,803)

Hirao et. al. teaches a fan controller for controlling the rotation of a rotor having a fan blade (5), rotation of the rotor being controlled by rotor circuitry (Shown in Figure 1), the fan controller comprising: an input for receiving an input voltage (V0), the rotor circuitry being energizable by the input voltage; Hirao does not disclose capacitive storage in electrical communication with both the rotor circuitry and the input, the capacitive storage capable of charging by receiving current from the input; and a current limiting element coupled between the input and the capacitive storage, the current limiting element at least in part controlling current flow from the input to the capacitive storage. Flory IV discloses an energy storage apparatus to ensure continued power supply during operation without interruptions. Flory IV discloses a capacitive storage (48) capable of charging by receiving current from the input (18) and a current limiting element (62) coupled between the input (As shown in Figure 7 and 8) and the capacitive

Art Unit: 3746

storage (As shown in Figure 7 and 8), the current limiting element (62) at least in part controlling current flow from the input (INPUT, Figure 7) to the capacitive storage (Figure 8); wherein the current limiting element (62) is configured to control current flow from the input to the capacitive storage at least in part as a function of the amount of current required to be drawn by the circuitry; wherein the capacitive storage includes a plurality of series capacitors (Comprises of several capacitors 54a, 54b, 54c and 54d connected in a series circuit 56 as shown in Figure 4); wherein the current limiting element (62) is configured to ensure that the circuitry has sufficient current to operate when the storage element is storing power; wherein the current limiting element (62) is configured to ensure that the operation begins substantially immediately after start-up. Flory IV discloses continued operation that indicated that the operation begins within one second after start-up (Column 2, lines 47-61). According to Flory, the current limiting element (62) is not coupled between the input and the control circuitry (Figure 2); wherein the current limiting element (62) isolates the control circuitry (Control circuitry connected to power bus 20) from the storage element. Hardy discloses a current limited charge circuit wherein the current limiting element is a PTC.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the cooling fan controller disclosed by Hirao in view of Flory IV and Hardy for the purpose of providing a continuous energy storage without interrupting the power supply to the motor and to provide a simple and economical way to control current flow of a charging circuit to avoid high current drains in energy storage by using PTC.

***Response to Amendment***

Applicant's amendments filed 7/20/2006 thru 8/16/2006 have been fully considered but they are not able to overcome the prior art.

***Response to Arguments***

Applicant's arguments filed 7/20/2006 thru 8/16/2006 have been fully considered but they are not persuasive. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Flory IV discloses an energy storage apparatus to ensure continued power supply during operation without interruptions. Flory IV discloses a capacitive storage (48) capable of charging by receiving current from the input (18) and a current limiting element (62) coupled between the input and the capacitive storage (As shown in Figure 7 and 8), the current limiting element at least in part controlling current flow from the input to the capacitive storage; wherein the current limiting element is configured to control current flow from the input to the capacitive storage at least in part as a function of the amount of current required to be drawn by the circuitry; wherein the capacitive

storage includes a plurality of series capacitors (Comprises of several capacitors 54a, 54b, 54c and 54d connected in a series circuit 56 as shown in Figure 4); wherein the current limiting element is configured to ensure that the circuitry has sufficient current to operate when the storage element is storing power; wherein the current limiting element is configured to ensure that the operation begins substantially immediately after start-up. Flory IV discloses continued operation that indicated that the operation begins within one second after start-up. According to Flory, the current limiting element is not coupled between the input and the control circuitry (Figure 2); wherein the current limiting element isolates the control circuitry from the storage element (48). Hardy discloses a current limited charge circuit wherein the current limiting element is a PTC.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vikansha S. Dwivedi whose telephone number is 571-272-7834. The examiner can normally be reached on M-F, 8-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ehud Gartenberg can be reached on 571-272-4828. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



VSD  
October 30, 2006



**EHUD GARTENBERG**  
**SUPERVISORY PATENT EXAMINER**